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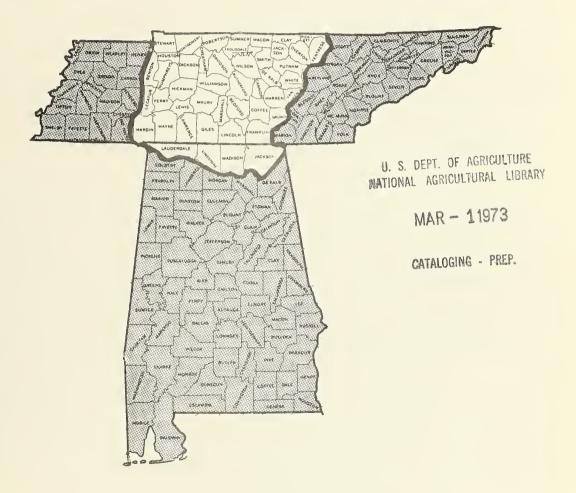
SOIL SURVEY INTERPRETATIONS FOR WOODLANDS

IN THE

NASHVILLE BASIN AND HIGHLAND RIM AREAS

OF

ALABAMA AND TENNESSEE



PROGRESS REPORT W-9 - - Revised JANUARY 1972

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Fort Worth, Texas



This report contains interpretations of soil surveys for woodland use and management in the Nashville Basin and Highland Rim areas of Alabama and Tennessee. The purpose is to provide currently available knowledge about soils as they relate to the establishment, growth, management, and harvesting of wood crops for the use of foresters, agricultural workers, woodland owners, and woodland managers. The information will be used by the Soil Conservation Service and cooperating agencies in the development of technical guides, soil handbooks, and published soil survey reports.

Field information was gathered by teams of foresters and soil scientists.

Representatives of Federal and State agencies, the wood-using industry, and others cooperated in gathering field data. The interpretations presented herein are made for use with soil surveys.

Table 2, SOIL RATINGS FOR WOODLAND USE, includes some evaluations for individual soils. The soil series listed are those defined according to the current soil classification system and includes portions of soil associations mapped in low intensity surveys. In <u>column one</u> (1) erosion and texture phases were consolidated within a soil series where no differences in productivity, species suitability or management problems existed.

Column two (2) includes a list of some of the commercially important tree species which are adapted to the soil in column one. These are the tree species which woodland managers generally favor in intermediate or improvement cuttings, after considering the form and vigor of individual trees. Priority between species will be influenced by local marketability and the owners objectives, as well as the quality of wood products from a given species.

Column three (3) indicates the average site index for the most important species listed in column two. The standard deviation is shown as a plus or minus figure ($^{\frac{1}{2}}$) for each species where five or more plots were taken on the

soils listed in column one. The site index curves used for each tree species are shown in <u>Table 1</u>, GUIDE FOR WOODLAND SUITABILITY CLASSES. An asterisk (*) following the site index rating indicates the rating is an estimate based on the same species on a similar soil, or by comparison with another species on the same soil. Site index is the average height of dominant trees at age 30 for cottonwood, age 35 for sycamore, and age 50 for all other species.

Column four (4) indicates the range of site index of the most important tree species in column two. The range in site index values is dependent on soil physical conditions, aeration, and nutrient and moisture availability during the growing season.

Column five (5) evaluates the potential erosion hazard of the soil in woodland use following cutting operations, or where the soil is exposed along roads, trails, firebreaks, or log-yarding areas. A rating of slight indicates that problems of erosion control are unimportant. A rating of moderate indicates some attention must be given to prevent unnecessary soil erosion. A rating of severe indicates that intensive treatments, or special equipment and methods of operation should be planned to minimize soil erosion. The potential erosion hazard is based on slope, soil depth, and erodibility, and soil loss tolerance.

Column six (6) includes evaluation of equipment restrictions. Ratings reflect limitations in the use of equipment for managing or harvesting the tree crop. A rating of slight indicates equipment use is seldom limited in kind or time of year. A rating of moderate indicates a need for modified equipment or seasonal restrictions due to slope, stones, obstructions, soil wetness, flooding, or overflows. A rating of severe indicates the need for specialized equipment due to one or more of the factors listed above.

Column seven (7) indicates the degree of expected <u>seedling mortality</u> during the first two growing seasons after planting or seeding. Normal rainfall, adequate site preparation, good planting stock, proper planting methods, and appropriate protection and cultivation are assumed. A rating of <u>slight</u> indicates that unsatisfactory survival on less than 25 percent of the area is likely. A rating of <u>moderate</u> indicates that unsatisfactory survival is likely on 25 to 50 percent of the area planted. A rating of <u>severe</u> indicates that unsatisfactory survival is likely on more than 50 percent of the area.

Column eight (8) lists several <u>suitable tree species for planting</u> on the soil named in column one. The list may include some species which do not normally occur in native stands on the designated soil or in this physiographic area, as well as some of the important species listed in column two.

Column nine (9) shows the ordination of the soils into a woodland suitability group. A woodland suitability group is made up of kinds of soil that are capable of producing similar kinds of wood crops, that need similar management to produce these crops, and that have about the same potential productivity. The ordination system and the suitability group symbols are explained in the following paragraphs.

The first element of the group symbol indicates the woodland suitability class. It expresses site quality by an arabic numeral ranging from 1 to 5, with class 1 the highest in potential productivity, followed by class 2, 3, 4, and 5. It is based on the average site index of one or more indicator forest types or tree species, as shown in Table 1, GUIDE FOR WOODLAND SUITABILITY CLASSES. The indicator species are underscored in column two of Table 2.

The second element in the symbol indicates the suitability subclass. It expresses selected soil properties that cause moderate to severe hazards or

limitations in woodland use or management, by one of the following lower case arabic letters:

Subclass x (stoniness or rockiness). Soils having restrictions or limitations for woodland use or management due to stones or rocks.

Subclass w (excessive wetness). Soils in which excessive water, either seasonally or year long, causes significant limitations for woodland use or management. These soils have restricted drainage, high water tables, or overflow hazards which adversely affect either stand development or management.

Subclass d (restricted rooting depth). Soils with restrictions or limitations for woodland use or management due to restricted rooting depths. Soils shallow to hard rock, hardpan, or other layers in the soil that restrict roots are examples.

<u>Subclass c (clayey soils)</u>. Soils having restrictions or limitations for woodland use or management due to the kind or amount of clay in the upper portion of the soil profile.

<u>Subclass s (sandy soils)</u>. Sandy soils with little or no textural B horizons and having moderate to severe restrictions or limitations for woodland use or management. These soils impose equipment limitations, have low moisture-holding capacity, and normally are low in available plant nutrients.

<u>Subclass f (fragmental or skeletal soils)</u>. Soils with restrictions or limitations for woodland use or management due to large amounts of coarse fragments in the profile over 2 mm and less that 10 inches, but includes flaggy soils.

Subclass r (relief or slope steepness). Soils with restrictions or limitations for woodland use or management due only to steepness of

Subclass o (slight or no limitations). Soils with no significant restrictions or limitations for woodland use or management.

Some kinds of soil may have more than one set of subclass characteristics.

Priority in placing each kind of soil into a subclass is in the order that
the subclass characteristics are listed above.

The third element in the symbol indicates the degree of hazards or limitations, and the general suitability of the soils for certain kinds of trees. The three management problems considered here are: (1) erosion hazard, (2) equipment restrictions, and (3) seedling mortality.

The <u>numeral 1</u> indicates soils with no to slight management problems, and they are best suited for needleleaf trees.

The <u>numeral 2</u> indicates soils with one or more moderate management problems, and they are best suited for needleleaf trees.

The <u>numeral 3</u> indicates soils with one or more severe management problems, and they are best suited for needleleaf trees.

The <u>numeral 4</u> indicates soils with no to slight management problems, and they are best suited for broadleaf trees.

The <u>numeral 5</u> indicates soils with one or more moderate management problems, and they are best suited for broadleaf trees.

The <u>numeral 6</u> indicates soils with one or more severe management problems, and they are best suited for broadleaf trees.

The <u>numeral 7</u> indicates soils with no to slight management problems, and they are suitable for either needleleaf or broadleaf trees.

The <u>numeral 8</u> indicates soils with one or more moderate management problems, and they are suitable for either needleleaf or broadleaf trees.

The <u>numeral 9</u> indicates soils with one or more **s**evere management

problems, and they are suitable for either needleleaf or broadleaf trees.

The <u>numeral 0</u> indicates the soils are not suitable for the production of major commercial wood products.

A fourth element, the <u>letter e</u>, has been used to ordinate some severely eroded soils with moderate to severe management problems into a separate "subgroup."

TABLE	1	-	GUIDE 1	FOR	WOODLA	ND	SUITABII	LITY	CLASSES
			NASHVTI	LLE	BASIN	_	HIGHLAND	RIM	

	:	1	:	2	:	3	:	4	:	5
Indicator Forest Type or Species	:	Very High	:	High	:M	oderately High	ŀ	loderate	:	Low
	:			SITE	IN	DEX				
Cottonwood	(1):	106+	:	96-105	:	86-95	:	76-85	:	75 -
Yellow-poplar	(2):	106+	:	96-105	:	86-95	:	76 - 85	:	75 -
Sweetgum	(3):	96+	:	86-95	:	76 - 85	:	66-75	:	65 -
Water oaks	(4):	96+		86-95	:	76 - 85	:	66 - 75	:	65 -
Nuttall oak	(5):	96+	:	86-95	:	76 - 85	:	66 - 75	:	65 -
Loblolly pine	(6):	96+	:	86-95	:	76-85	:	66-75	:	65 -
Shortleaf pine	(6):	86+	:	76-85	:	66 - 75	:	56-65	•	55 -
Virginia pine	(6):	86+	:	76-85	:	66 - 75	:	56-65	:	55 -
Soured oak	(7):	86+	:	76-85	:	66-75	:	56-65	:	55 -
Eastern redcedar	(8):	66+	:	56-65	:	46-55	:	35-45	:	35-
American sycamore	(9):	106+	:	96-105	•	86-95	:	76 - 85	:	75 -
					:		:		:	

- (1) Broadfoot, W. M., 1960, Field Guide for Evaluating Cottonwood Sites, USFS Occ. Paper 178 (Fig. 4).
- (2) Doolittle, W. T., 1957, Site Index Curves for Yellow-poplar--So. Appalachians.
- (3) Broadfoot, W. M., 1959, Guide for Evaluating Sweetgum Sites, USFS Occ. Paper 176 (Fig. 4).
- (4) Broadfoot, W. M., 1963, Guide for Evaluating Water Oak Sites in the Mid-South, USFS Res. Paper S0-1 (Fig. 4).
- (5) Broadfoot, W. M., Unpublished manuscript. Sou. For. Expmt. Sta., 1966.
- (6) Coile, T. S. and F. X. Schumacher, Jour. For. 53:432-435 (Fig. 4 and 8).
- (7) Schnur, L. G., 1937, Yield, Stand, and Volume Tables for Even-Aged Upland Oak Forests, USDA Tech. Bull. 560, Fig. 2.
- (8) TVA 1948, Site Curves, Eastern Redcedar, Tennessee Valley.
- (9) Briscoe, C. B. and M. D. Ferrill, 1958, Forestry Note 19, Louisiana State University.

TABLE 2 . SOIL RATINGS FOR WOODLAND USE Page 1 of Potential Productivity Management Problems Ordination Avg. Site Range Equip-Seedling Species Woodland Soils Tree Species Index & of Site Erosion ment Mortal-Suitable Suitabil-Standard Index Hazard Restricity for ity Deviation tion Planting Group (2) (1) (4) (7) (5) (3) (6) (8) (9) 87 85-97 Slight Slight Slight 307 Yellow-poplar Yellow-poplar Allen fine sandy loam Shortleaf pine 71+10 59-82 Shortleaf pine 73 69-78 to clay loam
2 to 20% slopes Virginia pine Virginia pine 67-75 Loblolly pine Upland oaks 71 61 56-65 Black walnut Eastern redcedar White ash Sugar maple ModerateModerate 20 to 45% slopes Black walnut Slight 3r8 Black cherry stony fine sandy Slight Moderate Slight 3x8 loam, stony loam, to 12 to 45% slopes Moderate fine sandy loam 65* 60-70 Slight Moderate Moderate Shortleaf pine 4c3e Shortleaf pine 68* 65-75 Virginia pine to clay loam, Virginia pine to 5 to 45% slopes 50* 46-55 Severe Severe Eastern redcedar Severe Loblolly pine severely eroded 42-45 Slight Slight Loblolly pine Eastern redcedar 43 Slight | 207 Armour silt loam to Loblolly pine 77 72-79 Black walnut cherty silt loam Black walnut Yellow-poplar slightly to Chinkapin oak Black locuat moderately Northern red oak eroded, 2 to 20% White oak Yellow-poplar slopes. Black locust Yellow-poplar 100* 96-105 Slight Slight Slight Yellow-poplar 207 Arrington silt loam, 0 to 80* 76-85 Black walnut Upland oaks Loblolly pine 90* 86-95 5%slopes Loblolly pine Shortleaf pine 80* 76-85 Black walnut Black cherry White ash Ashburn Yellow-poplar 90* 86~95 Slight Slight Slight Loblolly pine 307 cherty silt loam Upland oaks 70* 66-75 Yellow-poplar to cherty silty 66-75 Black walnut Shortleaf pine 70* clay loam, 6 to Loblolly pine 80* 76-85 20% slopes Ashwood 40-50 Eastern redcedar Eastern redcedar Slight Slight Slight 407 Black locust silt loam to Upland oaks 55 50~60 silty clay loam, Black locust Loblolly pine 2 to 20% slopes Black walnut Loblolly pine very rocky silty Eastern redcedar 40* 35-45 Moderate Severe Severe Eastern redcedar 5x3 clay loam. 2 to Loblolly pine 20% slopes Barfield ModerateModerate Eastern redcedar 443 Eastern redcedar 40±8 30-48 Moderate silty clay loam to to clay loam, 1 Severe to 30% slopes very rocky clay 30* 26-35 Moderate Severe Severe 5x3 loam, 1 to 30% slopes 4-28020
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							Page 2 of 13		
	Potential	Productivity	y	Man	agement Pr			Ordination	
		Avg. Site			Equip=	Seedling	Species	Woodland	
Soils	Tree Species	Index &	of Site	Erosion		Mortal-	Suitable	Suitabil	
		Standard	Index	Hazard	Restric-	ity	for	ity	
(1)	(2)	Deviation	(4)	(5)	tion (6)	(7)	Planting (8)	Group (9)	
(1)	(2)	(3)	(4)		(0)	(/)	(8)	(3)	
Baxter	Yellow-poplar	90 <u>+</u> 10		Slight	Slight	Slight	Yellow-poplar	307	
	Upland oaks	70 <u>+</u> 5	53-78				Loblolly pine		
to 20% slopes	Shortleaf pine	67 <u>+</u> 5	62-77						
	Virginia pine Loblolly pine	68 <u>+</u> 6 73+6	61-68 66-83						
	Eastern redcedar	51	45-55						
	Black walnut	-	-						
0 to 45% slopes				Moderate	Moderate	Moderate		3r8	
	y-11	90*	96 05	014-5-	Madamata	014-64	1-b1-11	20	
Season Silt loam, 0 to	Yellow-poplar Sweetgum	80*	86 - 95 76 - 85	Slight	Moderate	Slight	Loblolly pine Sweetgum	3w8	
	White oaks	70*	66-75				Sweetgun		
	Red oaks	70*	66-75						
	Loblolly pine	80*	76-85						
	Shortleaf pine	58 <u>+</u> 11	48-76	Slight	Slight	Moderate		3f8	
	Yellow-poplar	91+17	79-123				Shortleaf pine		
	Upland oaks	69 <u>+</u> 8 60*	55-79 56-65						
	Virginia pine Loblolly pine	70*	66-75						
	Lobiolly pine	70"	00-75						
0 to 40% slopes,				Moderate	Moderate	Moderate			
orth aspect									
0 to 40% slopes,	Virginia pine	50*	46-55	Moderate	Severe	Severe	Virginia pine	4f3	
outh aspect, and		55*	50-60				Eastern redcedar		
idge tops	Scarlet oak	55*	50-60						
	Yellow-poplar	90*	86-95	Moderate	Severe	Slight	Too stony to plant.	3×9	
	Upland oaks	70*	66-75				Manage by natural		
.0 to 75% slopes	Shortleaf pine	70*	66-75				regeneration.		
	V-111	004	06.05	21:1:	071.1.	07/	51	2 7	
	Yellow-poplar Upland oaks	90* 70*	86-85 66-75	Slight	Slight	S1ight	Black walnut Loblolly pine	307	
	Eastern redcedar	50*	46-55				Eastern redcedar		
	Hackberry	-	~				Davestii 1900		
	Hickory	-	_						
	Black walnut	-	-						
	Shortleaf pine	64	56-71	Slight	Slight	Slight	Loblolly pine	307	
	Yellow-poplar	80 65*	76 - 85 60 - 70				Shortleaf pine		
ravelly silt loam to 20% slopes	Loblolly pine	75*	70-80						
To Low o Topes	DODIOTTY PINE	, ,	, 5 - 5 5						
raxton	Upland oaks	70*	66-75	51ight	Slight	Slight	Loblolly pine	307	
	Eastern redcedar	50*	46~55				Eastern redcedar		
	Black locust	-	-				Black walnut		
,	Black walnut	- 0.04	76 05				Black locust		
roded	Loblolly pine	80*	76-85						
	Eastern redcedar	40*	36-45	51ight	Moderate	Moderate	Eastern redcedar	4c3e	
	Loblolly pine	70*	66-75			to	Loblolly pine		
everely eroded						Severe			
runo	Shortleaf pine	80*	76-85	Slight	Moderate	Moderate	Shortleaf pine	2s8	
	Virginia pine	80*	76-85	LITERIL	Hodelate	Hogerace	Loblolly pine	200	
	Loblolly pine	90*	86-85				, ,		
	Sycamore		-						

	F	Description to the tra		1 1/		-1.1 - · · ·	Page 3 of13	mp m
	Potential	Productivity Avg. Site	Range	Man	agement Pr Equip	Seedling	Species	Ordination Woodland
Soi1s	Tree Species	Index & Standard	of Site Index	Erosion Hazard		Mortal-	Suitable for	Suitabil-
	(0)	Deviation	71		tion	(7)	Planting	Group
(1) Cannon cherty silt loam O to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut Black cherry White ash	(3) 100 80 90 - -	(4) 96-105 76-85 86-95 - -	(5) Slight	(6) Slight	(7) Slight	(8) Yellow-poplar Black walnut Loblolly pine	207
Capshaw Silt loam to loam, 0 to 12% Slopes	Loblolly pine Yellow-poplar Upland oaks	80* 90* 70*	76-85 86-95 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine	307
Captina loam, 0 to 12% slopes	Loblolly pine Yellow-poplar Upland oaks Sweetgum	80* 90* 70* 80*	76-85 86-95 66-75 76-85	Slight	Slight	Slight	Loblolly pine	307
Christian Silt loam to Silty clay loam, 2 to 20% slopes	Shortleaf pine Loblolly pine White pine Upland oaks Virginia pine	66 80* 82 66 73	60-70 76-85 76-85 63-74 70-76	Slight	Slight	Slight	Loblolly pine Shortleaf pine Virginia pine	307
clay loam to clay, 5 to 20% slopes,severely eroded	<u>Virginia pine</u> Loblolly pine	60* 70*	56-65 66-75	Slight	Moderate to Severe	Moderate to Severe	Loblolly pine Virginia pine	4c3e
Colbert silt loam to silty clay loam, o to 20% slopes	Shortleaf pine Loblolly pine Eastern redcedan	60* 65 <u>+</u> 4 47	56-65 60-69 45-49	Slight	S1ight	Moderate	Loblolly pine Eastern redcedar	4c2
silty clay to clay, 0 to 20%	Eastern redceda	35*	30-40	Slight	Moderate	Severe	Eastern redcedar	5c3
very rocky silty clay to clay, 0 to 30% slopes	Eastern redcedar	35*	30-40	Slight	Severe	Moderate to Severe	Eastern redcedar	5 x3
Crider Silt loam, 2 to 20% slopes	Yellow-poplar Upland oaks Black walnut White ash Sugar maple Basswood Shortleaf pine Loblolly pine	95* 80* - - - - 80*	90-100 76-85 - - - - 76-85 86-95	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	207
ulleoka oam and flaggy oam, 2 to 20% lopes	Yellow-poplar Upland oaks Black walnut Black cherry White ash	90* 70* - -	86~95 66~75 ~ ~	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine Black locust	307
20 to 40%	Basswood Black locust Loblolly pine	- - 80*	- 76 - 85	Moderate	Moderate	Slight		3r8

		TABLE 2		ATINGS F			Page <u>4</u> of	13
	Potential	Productivit	y	Man	agement Pr	oblems		Ordination
		Avg. Site	Range		Equip-	Seedling	Species	Woodland
Soils	Tree Species	Index &	of Site	Erosion	1	Mortal-	Suitable	Suitabil-
		Standard	Index	Hazard	Restric~	ity	for Planting	ity
(1)	(2)	Deviation (3)	(4)	(5)	(6)	(7)	(8)	Group (9)
								(*)
Cumberland	Yellow-poplar	90*	86-95	Slight	Slight	Slight	Yellow-poplar	307
silt loam to	Upland oaks	70* 70*	66-75		Į.	!	Black walnut	
silty clay loam, 2 to 20% slopes	Shortleaf pine Virginia pine	70*	66 - 75			Ì	Shortleaf pine Loblolly pine	
2 to 20% slopes	Loblolly pine	80*	76 -85		1		Lobiolly pine	
	Eastern redcedar		46 - 55					
	Black walnut	-	-]			
-12. 1							ļ	·
silty clay or clay, 2 to 20%	Virginia pine Loblolly pine	60* 70*	56 - 65 66 - 75	Slight	Moderate	Moderate	Loblolly pine	4c3e
slopes, severely	Eastern redcedar		36-45		to Severe	Severe	Eastern redcedar	
eroded	20000111 10000001		30 43		Bevere	Severe		
					}			
Daniel I.								
Dandridge silt loam to	Upland oaks	60 55*	57-63		Moderate		Virginia pine	4d3
shaly silt loam,	Virginia pine Eastern redcedar		50-60 36-45	to Moderate		to Severe	Eastern redcedar	
5 to 20% slopes	Lastern Tedcedar	40"	30-43	Poderace		Severe		1
slight and					1			
moderate erosion								1
silty clay loam,	E-stand male des	204	06.05					{
shaly silty clay	Eastern redcedar	30*	26-35	Moderate to	Severe		Eastern redcedar	5d3
loam, 5 to 45%				Severe		to Severe		
slopes, severely				Bevere		pevere		
eroded								
					ļ			
Decatur	Shortleaf pine	66+4	60-72	Cliche	014-6-	014-1-4		
silt loam to	Yellow-poplar	90*	86-95	61ight	Slight	Slight	Yellow-poplar	307
gravelly silt	Upland oaks	70*	66-75				Black walnut Loblolly pine	
loam, 2 to 20%	Virginia pine	70*	66-75				Lobioliy pine	
slopes	Loblolly pine	80*	76-85					
20 + 20% -1	Black walnut	-	-					
20 to 30% slopes				Moderate	Moderate	Slight		3r8
silty clay loam	Loblolly pine	7 2	67-76	light	Moderate	Moderate	Loblolly pine	4c3e
to gravelly sil-	Virginia pine	60*	56 - 65	to	to	, iouce acc	Eastern redcedar	4036
ty clay loam,	Eastern redcedar	40*	36-45	Moderat	Severe			1
5 to 30% slopes								
severely eroded								
								1
Dellrose	Yellow-poplar	98 <u>+</u> 10	88-116	Slight	Slight	Slight	Yellow-poplar	207
cherty silt loam,		76	70-82				Black walnut	}
5 to 20% slopes	Loblolly pine	76	75 - 78				Black locust	
	Black walnut Sugar maple	-	_				Loblolly pine	L
20 to 45% slopes		_	_	Moderate	Moderate	Slight		2r8
	Black cherry	_	-					
	White ash	-	-					1
	Black locust	-	-					*
								
Dewey	Yellow-poplar	90*	86 - 95	Slight	Slight	Slight	Yellow-poplar	307
silt loam, 2 to	Upland oaks	70*	66-75				Black walnut	
20% slopes	Shortleaf pine	73	66-78				oblolly pine	
20 40 20% -1	Virginia pine	70* 80*	66-75 76-85	Madamai	Madazzti	C1: ab -		3r8
20 to 30% slopes	Loblolly pine Black walnut	-	-	Poderate	Moderate	Slight		310
	Eastern redcedar	50*	46-55					
silty clay loam,	Loblolly pine	70*	66-75	Slight	Moderate	Moderate	Loblolly pine	4c3e
5 to 30% slopes	Virginia pine	60*	56-65	to	to		Eastern redcedar	
	Eastern redcedar	40*	36 - 45	Moderate	Severe			
severely eroded								
severely eroded	GRICULTURE, SOIL CONSE	BVATION SERVICE	FORT WORT	M. TEXAS				

		TABLE 2	. SOIL R	ATINGS F	OR WOODLAN	ND USE	Page 5 of	13
	Potential	Productivit		Man	agement Pr			Ordination
Soila	Tree Species	Avg. Site Index & Standard Deviation	of Site Index	Erosion Hazard	Restric-	Seedling Mortal- ity	Species Suitable for	Woodland Suitabil- ity
(1)	(2)	(3)	(4)	(5)	tion (6)	(7)	Planting (8)	Group (9)
Dickson silt loam, 0 to 12% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine	92 73 <u>+</u> 7 80* 70*	86-108 63-84 76-85 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine	307
Donerail silt loam, 0 to 12% slopes	Yellow-poplar Upland oaks Black walnut Loblolly pine Black locust White ash	90* 70* - 80* -	86-95 66-75 - 76-85 -	Slight	Slight	Slight	Black walnut Black locust Loblolly pine	307
Dowellton silt loam, 0 to 5% slopes	Sweetgum Bottomland oaks Loblolly pine	80* 80* 80*	76-85 76-85 76-85	Slight	Severe	Severe	Loblolly pine Sweetgum	3w9
Dunning silty clay loam to silty clay, 0 to 5% slopes	Sweetgum Bottomland oaks Loblolly pine Cottonwood Green ash	90* 90* 90* 100*	86-95 86-95 86-95 96-105	Slight	Severe	Severe	Loblolly pine Cottonwood Sweetgum	2w9
Egam silt loam to silty clay loam, 0 to 5% slopes	Yellow-poplar Upland oaks Bottomland oaks Loblolly pine Black walnut	100* 80* 90* 90*	96-105 76-85 86-95 86-95	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	207
Elkins silt loam, 0 to 2% slopes	Yellow-poplar Bottomland oaks Loblolly pine Sweetgum Red maple	86 94 90* 90*	82-92 89-99 86-95 86-95	Slight	Severe	Severe	Loblolly pine	2w9
Emory silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut White ash Black cherry	104 80* 90* - -	91-118 76-85 86-95 -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	207
Ennis silt loam to cherty silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut Black cherry White ash	100 <u>+</u> 8 80* 90* - -	92-115 76-85 86-95 -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	207
Etowah silt loam to cherty silty clay loam, 2 to 12% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine Black walnut	90* 80* 90* 80*	86-95 76-85 86-95 76-85	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine Shortleaf pine	207
Fairmount silty clay loam, 5 to 20% slopes	<u>Upland oaks</u> Eastern redcedar	60* 40*	56-65 36-45	Slight	Moderate	Severe	Eastern redcedar Loblolly pine	4d3
4-28020 U.S. DEPARTMENT OF A	GRICULTURE, SOIL CONSEI	RVATION SERVICE	, FORT WORTI	H, TEXAS				

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		TABLE _2	. SOIL R	ATINGS F	OK WOODLAN	D OSE	Page 6 of	<u>13</u>
	Potential	Productivity	/	Man	agement Pr			Ordination
		Avg. Site	Range		Equip-	Seedling	Species	Woodland
Soils	Tree Species	Index &	of Site	Erosion		Mortal-	Suitable for	Suitabil-
		Standard Deviation	Index	Hazard	Restric-	ity	Planting	Group
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Yellow-poplar	80*	76-85	Clicht	Slight	Clicke	Shortleaf pine	307
Frankstown cherty silt loam		70*	66-75	Slight	Sirght	Slight	Loblolly pine	307
0 to 20% slopes	Shortleaf pine	65*	60-70				Black walnut	
	Virginia pine	70*	66-75			ļ	Black locust	
cherty silt loam,		*08	76-85	Moderat	eModerate	Slight		3r8
20 to 45% slopes	Black locust Black walnut	-	-					
	Black wallide	_	_					:
Fullerton	Yellow-poplar	90+10	76-100	Slight	S1ight	Slight	Shortleaf pine	307
silt loam to	Upland oaks	70 <u>+</u> 5 74+6	63 - 78 66 - 83				Lob1o1ly pine	
cherty silt loam, 5 to 20% slopes	Loblo11y pine Shortleaf pine	67+5	60-77				Virginia pine	
	Virginia pine	68+6	61-78					
silt loam to	Eastern redcedar		46-55	Moderat	eModerate	Slight		3r8
cherty silt loam,								
20 to 30% slopes;				0				
30 to 45% slopes,								
north aspect								ļ
cherty silty clay		65*	61-70	Slight	Moderate	Moderate	Loblolly pine	4c3e
loam, 12 to 45%	Virginia pine	60*	56-65	to	to	to	Virginia pine	
slopes, severely	Eastern redcedar	40*	36-45	Severe	Severe	Severe	Eastern redcedar	
eroded; cherty silt loam, 30 to								
45% slopes; south								
aspect and ridge								
tops								
								
Godwin	Bottomland oaks	90*	86-95	Slight	Severe	Severe	Lob1o11y pine	2w9
silt loam, 0 to	Cottonwood	100*	96-105	Silght	severe	Severe	Cottonwood	2W9
5% slopes	Sweetgum	90*	86-95				Sweetgum	
	Loblolly pine	90*	86~95					
	Green ash	-	-					
				-			 	
<u>Greendale</u>	Yellow-poplar	100*	85-105	Slight	Slight	Slight	Yellow-poplar	207
silt loam to	Upland oaks	80*	70-85				Black walnut	
cherty silt loam,	Shortleaf pine	80* 90*	70-85				Loblolly pine	1
0 to 12% slopes	Loblolly pine Black walnut	-	80-95				Shortleaf pine	ŀ
	Sugar maple	-	-					
	Black cherry	-	-					
	White ash	-	-	-				
Guin	Upland oaks	60*	56-65	Slight	Moderate	Moderate	Shortleaf pine	4£3
gravelly loam,	Shortleaf pine	60*	56-65	orranc .	to	nouceate	Loblolly pine	423
slight to moder-	Loblolly pine	66 <u>+</u> 3	60-70	}	Severe			{
ately eroded, 2				}				
to 35% slopes				1				
Guthrie	Yellow-poplar	102	95-110	Slight	Severe	Severe	Loblolly pine	2w9
silt loam, 0 to	Upland oaks	76 <u>+</u> 9	60-86				Sweetgum	
2% slopes	Loblolly pine	79	75-82					
	Bottomland oaks Sweetgum	87 90*	74-98 86-95					
	Red maple	-	-					
	1			<u></u>				
Homb los	V-11	100%	06 705	C1 / - 1	Wad	Clicks	Ioblo11	20
Hamblen loam to fine sand	Yellow-poplar	100* 80*	96 - 105 76 -8 5	Slight	Moderate	Slight	Loblolly pine Yellow-poplar	2w8
loam, 0 to 5%	Loblolly pine	90*	86-95				ICIIOW POPIAL	
slopes				1				i
								-
				1				
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TABLE 2 . SOIL RATINGS FOR WOODLAND USE

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		IADLE	. SUIL N	WIINGS L	OK WOODLAN	D USE	Page <u>7</u> of _1	.3
	Potential	Productivity	у	Man	agement Pr	oblems		Ordination
		Avg. Site			Equip-	Seedling	Species	Woodland
Soils	Tree Species	Index & Standard	of Site Index	Erosion Hazard	ment Restric-	Mortal- ity	Suitable for	Suitabil- ity
		Deviation		nazard	tion	l Icy	Planting	Group
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Hampshire	Upland oaks	70*	66-75	Slight	Slight	Slight	Black walnut	307
silt loam to	Loblolly pine	80*	76-85				Loblolly pine	
silty clay loam,	Eastern redcedar	50%	46-55				Black locust	
2 to 20% slopes	Black walnut Black locust	-] [1				
	Sugar maple	-	-					
silty clay to clay, 5 to 20%	Eastern redcedar Loblolly pine	40* 70*	36-45 66-75	Slight	Moderate	Moderate	Loblolly pine Eastern redcedar	4c3e
slopes, severely	Booletty pine	, 0	"	Moderate			Dabtern redecat	}
eroded								
	<u> </u>							
Harpeth	Yellow-poplar	100	96-105	Slight	Slight	Slight	Yellow-poplar	207
silt loam to	Upland oaks	80	76-85			ŭ	Black walnut	
silty clay loam,	Loblolly pine	90	86-95				Loblolly pine	
2 to 12% slopes	Black cherry Black walnut	-	-					
	Brack warner]
Uicko	Valle 1	90*	86-95	C14 c1	Slight	Click	Black walnut	307
Hicks loam to silty	Yellow-poplar Upland oaks	70*	66-75	Slight	Slight	Slight	Black locust	307
clay loam, 2 to	Shortleaf pine	70*	66-75				Loblolly pine	
20% slopes	Loblolly pine	80*	76-85				Shortleaf pine	
	Eastern redcedar Black walnut	50*	46-55	i		,		
	Black locust	-	_			. 1		
			ļ					
Hollywood	Sweetgum	90*	86-95	Slight	Severe	Severe	Loblolly pine	2w9
silty clay loam	Bottomland oaks	90*	86-85	Silgin	Severe	Severe	Cottonwood	2.00
to clay, 0 to	Loblolly pine	90*	86 - 95				Sweetgum	
5% slopes	Cottonwood Green ash	100*	96-105					i
	Green asn	-	_					
Holston loam to gravelly	Yellow-poplar	86 <u>+</u> 3 78+6	80-90 70-85	Slight	Slight	Slight	Loblolly pine Shortleaf pine	307
loam, 2 to 20%	Upland oaks Shortleaf pine	69+7	61-80				Virginia pine	
clopes	Loblolly pine	85*	80-90					
	Virginia pine	73	70-80					
	<u> </u>			-				
Humphreys	Yellow-poplar	101	84-110	Slight	Slight	Slight	Yellow-poplar	207
silt loam to gravelly silt	Upland oaks	70* 70*	66-75				Black walnut	
loam, 2 to 20%	Shortleaf pine Loblolly pine	90*	66-75 85-95				Loblolly pine	
slopes	Black walnut	-	-					
Huntington	Yellow-poplar	100*	96-105	Slight	Slight	Slight	Yellow-poplar	207
silt loam to	Upland oaks	80*	76-85				Black walnut	
gravelly silt	Loblolly pine	90*	86-95				Loblolly pine	
loam, 0 to 5% slopes	Shortleaf pine Black walnut	80*	76-85	1				
	Black cherry	-	-					
	White ash	-	-					
Iberia	Bottomland oaks	90*	86-95	Slight	Severe	Severe	Cottonwood	2w9
silty clay loam to clay, 0 to	Cottonwood Sweetgum	100* 90*	96-105 96-105				Loblolly pine Sweetgum	
2% slopes	Loblolly pine	90*	96-105				Dacce Rain	
	Green ash	-	-					
. 20020								
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		TABLE 2	. SULL N	ALINGS F	OK WOODLAN	ID USE	Page 8 of 13	3
	Potential	Productivit	у	Man	agement Pr	oblems		Ordination
		Avg. Site			Equip-	Seedling	Species	Woodland
Soils	Tree Species	Index &	of Site	Erosion	ment	Mortal-	Suitable	Suitabil-
		Standard	Index	Hazard	Restric-	ity	for	ity
		Deviation		ļ	tion		Planting	Group
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Inman	Yellow-poplar	90*	86-95	Slight	Slight	Slight	Black walnut	307
silt loam to	Upland oaks	70*	66-75		1		Black locust	
silty clay loam,	Shortleaf pine	70*	66-75				Loblolly pine	
2 to 20% slopes	Loblolly pine	80*	76-85			!		
	Eastern redcedar	50*	46-55	V-1	V-1	014-1-4		2-0
20 to 45% slopes	Black walnut	-	-	Moderat	Moderate	Silgne		3r8
	Black locust	-	-	l	!	L		L
clay loam to	Eastern redcedar	40*	36-45	Slight	Moderate	Moderate	Loblolly pine	4c3e
clay, 5 to 45%	Loblolly pine	70*	66-75	to	to	110 act acc	Eastern redcedar	.030
slopes, severely	2001011) Famo	, -		Moderat				
eroded								
				1				
Landisburg	Yellow-poplar	90*	86-95	Slight	S1ight	Slight	Loblolly pine	307
silt loam to	Upland oaks	70*	66-75				Shortleaf pine	
cherty silt loam,	Loblolly pine	85*	80-90				Virginia pine	
0 to 20% slopes	Virginia pine	70*	66-75					1
	Shortleaf pine	70*	66-75	1				1
			-					
Lanton	Bottomland oaks	90*	86-95	Slight	Severe	Severe	Ioblolly pino	2w9
Lanton silt loam to	Cottonwood	100*	96-105	STIgnt	severe	severe	Loblolly pine Cottonwood	ZW9
silty clay loam,	Sweetgum	90*	86-95				Sweetgum	
0 to 5% slopes	Loblolly pine	90*	86~95				3 wee cguiii	i
0 to 5% alopes	Green ash	_	-		1			1
	020011 4011							
Lawrence	Yellow-poplar	90*	86-95	Slight	Moderate	Moderate	Loblolly pine	3w8
silt loam,	Upland oaks	70*	66-75				, .	
0 to 5% slopes	Loblolly pine	85*	80-90					
	Sweetgum	80*	76-85					
	v. 11 1	90*	00 05	014.14	01:14	011.1.		2.7
Lax	Yellow-poplar	70*	86 - 95 66 - 75	Slight	Slight	Slight	Loblolly pine	307
silt loam, 0 to	Upland oaks Loblolly pine	80*	76-85				Shortleaf pine	
12% slopes	Shortleaf pine	70*	66~75	}				
	bhotelear pine	, ,	100 /3					
Lee	Yellow-poplar	90*	86-95	Slight	Severe	Severe	Loblolly pine	2w9
silt loam to	Upland oaka	80*	76-85		1			1
cherty silt loam,	Bottomland oaks	90*	86-95	{				
0 to 5% slopes	Sweetgum	90*	86=95					
	Loblolly pine	90	86-95	1				
					<u> </u>			
Lindside	Yellow-poplar	100*	96-105	Slight	Moderate	Slight	Yellow-poplar	2w8
silt loam to	Upland oaks	80*	76-85	STIRIL	TOUGH ALE	Jigne	Black walnut	2.40
cherty silt loam,		90*	86-95				Loblolly pine	1
0 to 5% slopes	Sweetgum	90*	86-95				Dozolly pinc	
	Black walnut	-	-					
Lobelville	Yellow-poplar	94	82-110	Slight	Moderate	Slight	Yellow-poplar	2w8
silt loam to	Upland oak	76	71-83				Black walnut	
cherty silt loam,	Loblolly pine	90*	86-95				Loblolly pine	
0 to 5% slopes	Black walnut	-	-					
			 	-				
Lynnville	Yellow-poplar	100*	96-105	Slight	Moderate	Slight	Yellow-poplar	2w8
silt loam to	Upland oaks	80*	76-85	Figure	I actate	Light	Black walnut	
cherty silt loam,	Loblolly pine	90*	86-75				Loblolly pine	
0 to 5% slopes	Sweetgum	90*	86-95				pine	
	Black walnut	-	-					
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		THE	. 5011				Page <u>9</u> of	<u>13</u>
	Potential	Productivit	у	Man	agement Pr	oblems		Ordination
		Avg. Site	Range		Equip∸	Seedling	Species	Woodland
Soils	Tree Species	Index &	of Site	Erosion		Mortal-	Suitable	Suitabil-
		Standard	Index	Hazard	Restric-	ity	for	ity
(1)	(2)	Deviation		(5)	tion	(7)	Planting	Group
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
laury	Yellow-poplar	90*	86-95	Slight	Slight	Slight	Yellow-poplar	307
ilt loam, 2 to	Upland oaks	70*	66-75				Black walnut	
0% slopes	Shortleaf pine	70*	66-75	1			Black locust	1
	Loblolly pine	80*	76-85				Loblolly pine	
	Black walnut Black locust	-	l -	1			Shortleaf pine	
	Black cherry	_	-					
	Sugar maple	-	-					
	White ash	-	-					
ilty clay loam,	Shortleaf pine	60*	56-65	Slight	Moderate	Moderate	Loblolly pine	4c3e
to 20% slopes, everely eroded	Loblolly pine Eastern redcedar	70* 50*	66 - 75 45 - 55			to Severe	Eastern redcedar	
everely eroded	Black locust	-	43-33			Severe		
	20000							
		001	06.55				7 1 1 1 1 1	
elvin	Yellow-poplar	90*	86-95	Slight	Severe	Severe	Loblolly pine	2w9
ilt loam to ilty clay loam,	Bottomland oaks Sweetgum	90* 90*	86 - 95 86 - 95				Sweetgum Cottonwood	
to 2% slopes	Cottonwood	100*	96-105				Socionwood	
	Loblolly pine	90*	86=95					
	Green ash	-	-					
							·	
ercer	Upland oaks	70*	66-75	Slight	Slight	Slight	Loblolly pine	307
ilt loam to	Shortleaf pine	70*	66-75				Black walnut	
ilty clay loam,	Loblolly pine	80*	76-85				Black locust	
to 20% slopes	Black walnut	-	-					
	Black locust	-	-					
imosa	Upland oaks	70*	66-75	Slight	Slight	Slight	Loblolly pine	307
ilt loam to	Loblolly pine	80*	76-85				Black locust	
herty silt loam, to 20% slopes	Eastern redcedar Black walnut	50*	46-55				Eastern redcedar	İ
to 20% slopes	Black locust	_] [
0 to 45% slopes	Hickory	-	-	Moderat	eModerate	Slight		3r8
herty silty clay	Ioblolly pine	70*	66-75	Slight	Moderate	Moderate	Loblolly pine	4c3e
o cl ay, 5 to 45%		45=*	40-50	to	to	Moderate	Eastern redcedar	4636
lopes, severely	Edocern redecadi	1 43	1000		Severe		Basecin reaccadi	1
roded				1.000140	30,010			
			1					
ery rocky silty			1	Slight	Severe	Moderate		4x3
lay to clay-all			1	to		to		
lopes				Moderate		Severe		
invale	Yellow-poplar Upland oaks	89 <u>+</u> 8 62	74-96 58 - 65	Slight	Slight	S1ight	Yellow-poplar	307
herty silt loam,		73	65-78				Black walnut Shortleaf pine	
to 20% slopes	Loblolly pine	80*	76-85				Loblolly pine	1
	Virginia pine	70*	65-75					
	Black walnut	-	-					
				 				
onongahela	Yellow-poplar	90*	86-95	Slight	S1ight	Slight	Loblolly pine	307
ilt loam to	Upland oaks	73 <u>+</u> 6	64-82				Shortleaf pine	
ravelly loam,	Shortleaf pine	70*	65-75				Virginia pine	
to 12% slopes	Loblolly pine	81+6	70-88					
	Virginia pine	70*	65-75					
	Vol101-1-1	00110	75 100	011	617	01/	Character C.	2.7
ounted or	Yellow-poplar	90 <u>+</u> 10 67+10	75-108	Slight	Slight	Slight	Shortleaf pine	307
	linland calco	13/71()	53-87				Loblolly pine	1
ountview ilt loam, 2 to 0% slopes	Upland oaks Shortleaf pine		58-70			1	Virginia pine	
	Shortleaf pine	64 <u>+</u> 8	58 -79 76 - 85				Virginia pine	
ilt loam, 2 to			58-79 76-85 52-72				Virginia pine	

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		Page <u>10</u> of <u>13</u>						
	Potential	Productivit		Man	agement Pr			Ordination
Soi1s	Tree Species	Avg. Site Index &	of Site	Erosion		Seedling Mortal-	Species Suitable	Woodlan Suitabi
		Standard Deviation	Index	Hazard	Restric- tion	ity	for Planting	ity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Group (9)
ewark ilt loam, 0 to % slopes	Loblolly pine Bottomland oaks Sweetgum Green ash	90* 90* 90* -	86-95 86-95 86-95	Slight	Moderate	Slight	Loblolly pine Sweetgum Cottorwood	2w8
ixa ilt loam, 0 to 2% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine	90* 70* 80* 80*	86-95 66-75 76-85 76-85	Slight	Slight	Slight	Loblolly pine Shortleaf pine	307
ugent ine sandy loam o loamy fine and, 0 to 2% lopes	Shortleaf pine Virginia pine Loblolly pine Sycamore	80* 80* 90*	76-85 76-85 86-95	Slight	Moderate	Moderate	Loblolly pine Shortleaf pine	2s8
aden ilt loam, 0 to 2% slopes	Loblolly pine Shortleaf pine Sweetgum	80* 70* 80*	76-85 66-75 76-85	S1ight	Slight	Slight	Loblolly pine	307
<u>Pembroke</u> iilt loam, 0 to 10% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine Black walnut Black cherry White ash Basswood	100* 80* 90* 80* - -	96-105 76-85 86-95 76-85 - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	207
ickwick ilt loam, 2 to 0% slopes	Yellow-poplar Upland oaks Shortleaf pine Virginia pine Loololly pine Eastern redcedar Black walnut	95±8 73 70* 70* 80* 55	82-108 66-86 66-75 66-75 76-85 48-61	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	307
obertsville ilt loam, 0 to % slopes	Yellow-poplar Upland oak Loblolly pine Bottomland oaks Sweetgum Red maple	100* 75* 80* 90* -	96-105 70-80 76-85 86-95 86-95	Slight	Severe	Severe	Loblolly pine Sweetgum	2w9
ockcastle haly silt loam, O to 50% slopes	Virginia pine Shortleaf pine Upland oaks Eastern redcedar	50* 50* 50* 30*	46-55 46-55 46-55 26-35	Slight to Severe	Moderate to Severe	Moderate to Severe	Virginia pine Eastern redcedar	5 d 3
oellen ilty clay loam, to 2% slopes	Bottomland oaks Cottonwood Sweetgum Loblolly pine Green ash	90* 100* 90* 90*	86-95 96-105 86-95 86-95	Slight	Severe	Severe	Loblolly pine Cottonwood Sweetgum	2w9
ussellville ilt loam, 0 to 2% slopes	Yellow-poplar <u>Upland oaks</u> Loblolly pine Shortleaf pine	90* 70* 80* 70*	86-95 66-75 76-85 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine	307

TABLE 2 . SOIL RATINGS FOR WOODLAND USE

		TABLE 2	. SOIL R	ATINGS I	OR WOODLAN	ND USE	Page <u>11</u> of <u>13</u>		
Soils	Potential Tree Species	Productivity Avg. Site Index & Standard	Range of Site Index	Mar Erosion Hazard	Equip- ment Restric-	Seedling Mortal- ity	Species Suitable for	Ordination Woodland Suitabil- ity	
(1)	(2)	Deviation		(5)	tion		Planting	Group	
Sango silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine	(3) 84 70* 80* 65	78-90 66-75 76-85 64-66	(5) Slight	(6) Slight	(7) Slight	(8) Loblolly pine	307	
Sees silty clay loam, 2 to 12% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut Eastern redcedar	90* 70* 80* - 50*	86-95 66-75 76-85 - 46-55	S1ight	Moderate	Slight	Yellow-poplar Black walnut Loblolly pine	3w8	
Sequatchie silt loam to gravelly fine sandy loam, 2 to 20% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut White ash Sugar maple Black cherry	100* 80* 90 - - -	96-105 76-85 81-98 - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	207	
Staser loam to gravelly fine sandy loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut White ash Sugar maple Black cherry	100* 80* 90* - -	96-105 76-85 86-95 - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	207	
Statler silt loam to fine sandy loam, 0 to 12% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine	100* 80* 90* 80*	96-105 76-85 86-95 76-85	Slight	Slight	Slight	Yellow-poplar Loblolly pine Black walnut	207	
Stiversville sil: loam to loam, 2 to 20% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut Black locust	88 74 77 <u>+</u> 5	82-101 68-89 69-82	Slight	Slight	Slight	Yellow-poplar Black walnut Black locust Loblolly pine	307	
20 to 30% slopes		50*	46-55	Modera	teM od e rate	Slight		3r8	
clay loam to clay, 5 to 30% slopes, severely eroded	Loblolly pine Eastern redcedar	70* 40*	66-75 36-45	Moderat	e Severe	Moderate to Severe	Loblolly pine Eastern redcedar	4c 3e	
Sulphura cherty and shaly silt loam, 12 to 45% slopes	Upland oaks Shortleaf pine Virginia pine Loblolly pine Eastern redcedar	55* 55* 55* 65* 35*	50-60 50-60 50-60 50-60 30-40	Slight to Severe	Moderate to Severe	Moderate to Severe	Shortleaf pine Virginia pine Loblolly pine Eastern redcedar	5d3	
Taft silt loam, 2 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Sweetgum Shortleaf pine	90* 61 85* 80* 60	86-95 56-63 80-90 76-85 56-63	Slight	Moderate	Moderate	Loblolly pine	3w8	
4-28020 U.S. DEPARTMENT OF ACUSEASCIFEE BORTH, 184 (165	GRICULTURE, SOIL CONSER	IVATION SERVICE.	FORT WORTH	H, TEXAS			-		

							Page <u>12</u> of <u>1</u>	3
	Potential	Productivity Avg. Site	Range	Mar	Equip	oblems Seedling	Species	Ordination Woodland
Soils	Tree Species	Index &	of Site	Erosion		Mortal-	Suitable	Suitabil-
	·	Standard	Index	Hazard	Restric-	ity	for	ity
		Deviation			tion		Planting	Group
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Talbott	Upland oaks	65*	60-70	Slight	Moderate	Moderate	Loblolly pine	3c2
silt loam to	Loblolly pine	80*	76-85				Shortleaf pine	
silty clay loam,	Shortleaf pine	64 <u>+</u> 6	56-72				Virginia pine	
2 to 20% slopes	Virginia pine	70*	66-75				Eastern redcedar	
	Eastern redcedar	46 <u>+</u> 5	4 2- 52		1	1		
silty clay, 5 to	Lob lolly pine	70*	66-75	Slight	Moderate	Severe	Loblolly pine	4 c 3e
20% slopes,	Virginia pine	60*	56-65	JIIgnic	1.000200		Virginia pine	1
severely eroded	Eastern redcedar	40*	36-45				Eastern redcedar	
very rocky silty				Slight	Severe	Severe		4x3
clay, all slopes								
								1
Tarklin	Yellow-poplar	90*	86-95	Slight	Slight	Slight	Loblolly pine	307
silt loam to	Upland oaks	70*	66-75				Shortleaf pine	
cherty silt loam 0 to 20% slopes	Loblolly pine Shortleaf pine	85* 70*	80 - 90 66 - 75				Virginia pine	}
0 to 20% stopes	Virginia pine	70*	66-75		e de la companya de l	i		
	VIIgInia pine							
Tupelo	Yellow-poplar	90*	86-95	Slight	Moderate	Moderate	Loblolly pine	3w8
silt loam, 0 to	Upland oaks	70*	66-75	STIRILE	rioderace	Floderate	Topicity bine	3w6
5% slopes	Loblolly pine	80*	76-85					
5% STOPES	Sweetgum	80*	76-85		1			ĺ
	, and the second							
Tyler	Yellow-poplar	90*	86-95	Slight	Severe	Severe	Loblolly pine	3w8
silt loam to	Upland oaks	70*	66-75	DIIGHE	DEVELO	bevere	hoofoffy pine	30
loam, 0 to 5%	Loblolly pine	79	75-82					
slopes	Sweetgum	80*	76-85					
Waynesboro	Yellow-poplar	90*	86-95	Slight	Slight	Slight	Yellow-poplar	307
loam to gravelly		75*	70-80	DILGUE	Diigiic	origine	Black walnut	307
loam, 2 to 20%	Loblolly pine	80*	76-85				Loblolly pine	
slopes	Shortleaf pine	70*	66-75				Shortleaf pine	
	Virginia pine	77 <u>+</u> 6	69-86				Virginia pine	
20 to 30% slopes	Black walnut	-	-	Moderat	eModerate	Slight		3r8
clay loam to	Loblolly pine	70≭	66-75	Slight	Moderate	Moderate	Loblolly pine	4c3e
gravelly clay	Shortleaf pine	60*	56-65	to	to	to	Virginia pine	
loam, 5 to 30%	Virginia pine	65*	60-70	Moderate	Severe	Severe		
slopes, severely eroded								
eroded								
77-1-11		201	06.55				- 14 44	2.6
Welchland	Yellow-poplar	90*	86-95	Slight	Moderate	Moderate	Loblolly pine	3x8
cobbly loam,	Upland oaks	70* 80*	66-75				Shortleaf pine	
1 to 10% slopes	Loblolly pine Shortleaf pine	70*	76-85 66-75					
	Virginia pine	70*	66-75					
	Sycamore	-	-					
Whitwell	Yellow-poplar	95*	90-100	Slight	Moderate	Moderate	Loblolly pine	2w8
loam to silt	Upland oaks	75*	70-80				Sweetgum	
loam, 0 to 5%	Sweetgum	90*	86-95					
slopes	Loblolly pine	90*	86-95					
Wolftever	Yellow-poplar	90*	86-95	S1ight	Moderate	Moderate	Loblolly pine	3w8
silt loam, 0 to	Upland oaks	70*	66-75				Yellow-poplar	
5% slopes	Bottomland oaks	80*	76-85					
	Sweetgum Loblolly pine	80* 80*	76-85 76-85					
	Louidity pine	30	/0-03					
4 20020								
4-28020	GRICULTURE, SOIL CONSE	RVATION SERVICE	, FORT WORT	H, TEXAS				

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TABLE 2 . SOIL RATINGS FOR WOODLAND USE Page 13 of 13

	TABLE 2. SUIL RATINGS FOR WOUDLAND USE					Page <u>13</u> of <u>13</u>		
	Potential	Productivit		Man	agement Pr	oblems		Ordination
		Avg. Site	Range		Equip-	Seedling	Species	Woodland
Soi1s	Tree Species	Index &	of Site	Erosion		Mortal-	Suitable	Suitabil-
		Standard	Index	Hazard	Restric-	ity	for	ity
(1)	(2)	Deviation (3)	(4)	(5)	tion (6)	(7)	Planting (8)	Group (9)
	(2)		l			1		İ
Woolper	Upland oaks	70*	66-75	Slight	Slight	Slight	Black walnut	307
silty clay loam,	Lobiolly pine	80*	76-85				Loblolly pine	
2 to 20% slopes	Eastern redcedar		46-55				Eastern redcedar	
	Black walnut Black locust	-] [i
	brack rocust	-	-		ļ			
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4 - 28020								
	I AGRICULTURE, SOIL CONSE	RVATION SERVICE	FORT WORT	H, YEXAS	•	•		•

Table 3, SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY, is a summary of the most important interpretations for a woodland suitability group of soils.

<u>Column one</u> (1) includes the suitability group symbol and a brief description of the group of soils, including their important hazards and limitations for woodland use and management.

<u>Column two</u> (2) is a tabulation of the soils within each woodland suitability group.

Column three (3) is a list of some commercially-important tree species which occur on the soils in each suitability group.

Column four (4) shows the site class (site index rounded off to the nearest 10-foot interval) for the most important tree species listed in column three.

<u>Column five</u> (5) lists some of the most important tree species which are suitable for planting or direct seeding on the soils in each suitability group.

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

		Productivi		Species
Woodland Suitability Group	Soils	Tree Species	Site Class	Suitable for Planting
(Symbol and Description) (1)	(2)	(3)	(4)	(5)
of Soils with high potential productivity; no serious anagement problems; suitable or needleleaf and/or roadleaf trees.	Arrington silt loam, 0-5% slopes Cannon cherty silt loam, 0-5% slopes Crider silt loam, 2-20%slopes Dellrose cherty silt loam, 5-20% slopes Egam silt loam to silty clay loam, 0-5% slopes Emory silt loam, 0-5% slopes Emory silt loam and cherty silt loam, 0-5% slopes Emory silt loam and cherty silt loam, 2-12% slopes Etowah silt loam and cherty silt loam, 2-12% slopes Greendale silt loam and cherty silt loam, 2-12% slopes Harpeth silt loam to ailty clay loam, 2-12% slopes Humphreys silt loam and gravelly silt loam, 2-20% slopes Huntington silt loam and gravelly silt loam, 0-5% slopes Huntington silt loam and gravelly silt loam, 0-20% slopes Sequatchie silt loam to gravely fine sandy loam, 0-5% slopes Stater loam to gravelly fine sandy loam, 0-5% slopes Statler silt loam to fine sandy loam, 0-12% slopes		90-100 80 80 90 - - - -	Yellow-poplar Black walnut Loblolly pine
r8 Soils on steep slopes with high potential productivity oderate erosion hazard and quipment restrictions; suitable or needleleaf and/or broadleaf rees.	<u>Dellrose</u> cherty silt loam, 20-45% slopes	Yellow-poplar Black walnut Loblolly pine Black locust Red oaks White oaks Sugar maple Basswood	100 - 80 - - - -	Yellow-poplar Black walnut Loblolly pine Black locust
w8 Seasonally wet soils with high potential producti- ity; moderate equipment estrictions; suitable for eedleleaf and /or broadleaf rees.	Hamblen loam to fine sandy loam, 0-5% slopes Lindside silt loam and cherty silt loam, 0-5% slopes Lobelville silt loam and cherty silt loam, 0-5% slopes Lynnville silt loam to cherty silt loam, 0-5% slopes Lynnville silt loam, 0-2% slopes Newark, silt loam, 0-2% slopes Whitwell loam to silt loam, 0-5% slopes	Yellow-poplar Loblolly pine Red oaks White oaks Black walnut Green ash	100 90 - - - -	Yellow-poplar Black walnut Loblolly pine
w9 Excessively wet soils with high potential product- vity; severe equipment restric- ions and moderate to severe eedling mortality; suitable or needleleaf and/or broadleaf rees.	Dunning silt loam to silty clay loam, 0-5% slopes Elkins silt loam, 0-2% slopes Godwin silt loam, 0-5% slopes Guthrie silt loam, 0-2% slopes Hollywood silty clay loam to clay, 0-5% slopes Iberia silty clay loam to clay, 0-2% slopes Lanton silt loam to silty clay loam, 0-5% slopes Lanton silt loam to silty clay loam, 0-5% slopes Melvin silt loam to silty clay loam, 0-2% slopes		90 100 90 100 - -	Loblolly pine Sweetgum Cottonwood

TABLE 3 . SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

Page 2 of 5

		Productivit		Species
Woodland Suitability Group	Soils	Tree Species	Site Class	Suitable
(Symbol and Description) (1)	(2)	(3)	(4)	for Planting (5)
	, ,	(3)	(4)	j (3)
w9 (continued)	Robertsville silt loam,			
	Roellen silty clay loam,			1
	0-2% slopes			
s8 Sandy soils with moderate	Bruno loamy fine sand, 0-2%	Loblolly pine	90	Loblolly pine
ly high productivity; oderate equipment restrictions	slopes	Shortleaf pine Virginia pine	80 80	Sycamore Shortleaf pine
oderate equipment restrictions oderate seedling mortality;	Nugent fine sandy loam to loamy fine sand, 0-2% slopes	Sycamore Sycamore	-	Cottonwood
uitable for broadleaf and/or	Today Time Sand, S 2% STOPES	Sweetgum	90	OOCCONWOOD
eedleleaf trees.		Cottonwood	100	
-7 Sails with mademans lashiel	Allon fine condu learn to	Valley nanley	0.0	V-111
o7 Soils with moderately high potential productivity;	Allen fine sandy loam to clay loam, 2-20% slopes	Yellow-poplar Shortleaf pine	90 70	Yellow-poplar
o serious management problems;	Armour silt loam and cherty	Virginia pine	70	Loblolly pine Shortleaf pine
uitable for needleleaf and /or	silt loam, 2-20% slopes	Eastern redcedar	60	Virginia pine
roadleaf trees.	Ashburn cherty silt loam to	Red oaks	70	Black walnut
	cherty silty clay loam,	White oaks	-]
	6-20% slopes	Black walnut	-	
	Baxter cherty silt loam,	Black cherry	-	
	2-20% slopes			
	Bradyville silt loam to silty clay loam, 0-20% slopes			
	Brandon silt loam or gravelly			
	silt loam, 2-20% slopes			
	Braxton silt loam, 0-20%			
	slopes			
	Capshaw silt loam to loam,			
	0-12% slopes			
	Captina silt loam, 0-12% lopes			
	Christian silt loam to silty			
	clay loam, 2-20% slopes			
	Culleoka loam, 2-20% slopes			1
	Cumberland silt loam to silty clay loam, 2-20% slopes			
	Decatur silt loam, 2-20%Slopes			
	Dewey silt loam, 2-20% slopes			
	Dickson silt loam, 2-12% slopes			
	Donerail silt loam, 0-12%			
	slopes			
	Frankstown cherty silt loam,			
j	0-20% slopes			
	Fullerton silt loam or cherty silt loam, 5-20% slopes			
	Hampshire silt loam to silty			
	clay loam, 2-20% slopes			
	Hicks silt loam to silty			
	clay loam, 2-20% slopes			
	Holston loam and gravelly			
	loam, 2-20% slopes			
	Inman silt loam to silty clay loam, 2-20% slopes			
	Landisburg silt loam and			1
	cherty silt loam, 0-20%slopes			
	Lax silt loam, 0-12% slopes			
	Maury silt loam, 2-20%slopes			
	Mercer silt loam to silty			
	clay loam, 0-20% slopes			
	Mimosa silt loam and cherty			
	silt loam, 2-20% slopes			
	Minvale silt loam and cherty silt loam, 2-20% slopes			
	Monongahela silt loam to			
	gravelly loam, 0-12% slopes			
	Mountview silt loam, 2-20%			
	slopes			
	Nixa silt loam, 0-12% slopes			

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

Page 3 of 5

			•	age <u>5</u> 01 <u>5</u>
		Productivi		Species
Woodland Suitability Group (Symbol and Description)	Soils	Tree Species	Site Class	Suitable for Planting
(1)	(2)	(3)	(4)	(5)
307 (continued)	Pickwick silt loam, 2-20% slopes Russelville silt loam, 0-12% slopes Sango silt loam, 0-5% slopes Stiversville silt loam to loam, 2-20% slopes Tarklin silt loam and cherty silt loam, 0-20% slopes Waynesboro loam and gravelly loam, 2-20% slopes Woolper silty clay loam, 2-20% slopes			
3r8 Loamy soils on steep slopes with moderately high productivity; moderate erosion hazard and equipment limitations; suitable for needleleaf and/or broadleaf trees.	Allen fine sandy loam to clay loam, 20-45% slopes Baxter cherty silt loam, 20-45% slopes Culleoka loam, 20-45% slopes Decatur silt loam, 20-30% slopes Dewey silt loam, 20-30% slopes Frankstown cherty silt loam, 20-45% slopes Fullerton silt loam and chert silt loam, 20-45% slopes Inman silt loam to silty clay loam, 20-45% slopes Mimosa silt loam, 20-45% slopes Mimosa silt loam, 20-45% slopes Stiversville silt loam to loam, 20-30% slopes Waynesboro loam and gravelly loam, 20-30% slopes	Shortleaf pine Virginia pine Loblolly pine Eastern redcedar s Black walnut Red oaks White oaks	90 70 70 80 50-60 -	Yellow-poplar Loblolly pine Black walnut Shortleaf pine
3x8 Stony or rocky soils with moderately high productivity; slight to moderate erosion hazard and moderate equipment restrictions; suitable for needleleaf and/or broadleaf trees.	Allen stony fine sandy loam to stony loam, 12-45% slopes Welchland cobbly loam, 1-10% slopes	Yellow-poplar Loblolly pine Shortleaf pine Virginia pine Black walnut Red oaks White oaks	100 80 70 - - -	Yellow-poplar Black walnut Loblolly pine Shortleaf pine Virginia pine
3x9 Stony or rocky soils with moderately high productivity; severe equipment limitations, moderate to severe erosion hazards; suitable for needleleaf and/or broadleaf trees.	Bouldin stony sandy loam,	Yellow-poplar Upland oaks Shortleaf pine	90 70 70	Too stony to plant. Manage by natural regeneration.
3w8 Seasonally wet soils with moderately high productivity; moderate equipment limitations and slight to moderate seedling mortality; suitable for needleleaf and/or broadleaf trees	Beason silt loam, 0-2% slopes Lawrence silt loam, 0-5%slopes Sees silty clay loam, 2-12% slopes Taft silt loam, 0-5% slopes Tupelo silt loam, 0-5% slopes Tyler silt loam to loam, 0-5% slopes Wolftever silt loam, 0-5% slopes	Yellow-poplar Sweetgum Loblolly pine Red oaks White oaks Shortleaf pine	90 80 80 70 70 60-70	Loblolly pine Sweetgum
3w9 Excessively wet soils with moderately high productivity; severe equipment restrictions and moderate to severe seedling mortality; suitable for broadleaf and/or needleleaf trees	Dowellton silt loam, 0-5% slopes Lee silt loam and cherty silt loam, 0-5% slopes	Sweetgum Loblolly pine Water oak Red oaks White oaks	90 80 80 -	Loblolly pine Sweetgum

TABLE 3 . SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

Page 4 of 5

				Page 4 of 5
		Productivi		Species
Woodland Suitability Group	Soils	Tree Species	Site	Suitable
(Symbol and Description)	(0)	(2)	Class	for Planting
(1)	(2)	(3)	(4)	(5)
f8 Fragmental soils with	Bodine cherty silt loam,	Shortleaf pine	60	Loblolly pine
moderately high producti-	5-45% slopes	Virginia pine	60	Shortleaf pine
ity; slight to moderate erosion	j	Loblolly pine	70	
nazard and equipment restriction	s	Yellow-poplar	90	
and moderate seedling mortality;		Red oaks	70	
suitable for needleleaf and/or	i	White oaks	60	
proadleaf trees.				
c2 Clayey soils with moderate	- Talbott silt loam to silty	Loblolly pine	70	Loblolly pine
ly high productivity;	clay loam, 2-30% slopes	Virginia pine	60	Virginia pine
light to moderate equipment		Eastern redcedar	40	Eastern redced
estrictions and seedling				
ortality; best suited for				
eedleleaf trees.				
07 Loamy soils with moderate	Ashwood silt loam to silty	Eastern redcedar	40+	Eastern redceda
productivity; no serious	clay loam, 2-20% slopes	Red oaks	50+	Black locust
management problems; suitable		White oaks	-	Loblolly pine
or needleleaf and/or broadleaf		Black locust	-	
rees.	İ			
x3 Rocky soils with moderate	Mimosa very rocky silty clay	Eastern redcedar	40	Eastern redceds
productivity; slight to	to clay, 2-45% slopes	Loblolly pine	70	Loblolly pine
oderate erosion hazard and	Talbot very rocky silty clay,	Shortleaf pine	60	
oderate to severe equipment	2-45% slopes			
estrictions and seedling				
ortality; best suited for				
eedleleaf trees.				
d3 Shallow soils with moder-	Barfield silty clay loam to	Eastern redcedar	40	Eastern redceda
	clay loam, 2-30% slopes		60	Lastern redeed
ate productivity; slight		Shortleaf pine	60	
o moderate erosion hazard, and	Dandridge silt loam and shall			
equipment restrictions; moderate	silt loam, 5-30% slopes			
o severe seedling mortality; est suited for needleleaf trees	Fairmount silty clay loam, 5-20% slopes			1
est suited for meedlelear trees	. 3-20% Stopes			
f3 Fragmental soils with	Bodine cherty silt loam on	Virginia pine	60	Virginia pine
moderate productivity;	south aspects, 20-45% slopes	Eastern redcedar	40	Eastern redceds
oderate erosion hazard and	Guin gravelly loam, 2-30%	Chestnut oak	60	
evere seedling mortality; best				
	Slopes	Scarier oak i	60	1
uited for needleleaf trees.	slopes	Scarlet oak	60	
uited for needleleaf trees.	stopes	Scarlet oak	60	
c2 Clayey soils with moderate	Colbert silt loam to silty	Shortleaf pine	60	Loblolly pine
c2 Clayey soils with moderate productivity; moderate		Shortleaf pine Loblolly pine	60 70	
c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment	Colbert silt loam to silty	Shortleaf pine	60	
c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment estrictions; best suited for	Colbert silt loam to silty	Shortleaf pine Loblolly pine	60 70	Loblolly pine Eastern redceds
c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment estrictions; best suited for	Colbert silt loam to silty	Shortleaf pine Loblolly pine	60 70	
c2 Clayey soils with moderate productivity; moderate edling mortality and equipment estrictions; best suited for eedleleaf trees.	Colbert silt loam to silty clay loam, 0-20% slopes	Shortleaf pine Loblolly pine Eastern redcedar	60 70 50	Eastern redced
c2 Clayey soils with moderate productivity; moderate edling mortality and equipment estrictions; best suited for eddleleaf trees.	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely	Shortleaf pine Loblolly pine Eastern redcedar	60 70 50	Eastern redced
c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment estrictions; best suited for eedleleaf trees. c3e Severely eroded soils with moderate productivity;	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine	60 70 50	Eastern redced
Clayey soils with moderate productivity; moderate edding mortality and equipment estrictions; best suited for eddleleaf trees. Clay Severely eroded soils with moderate productivity; oderate to severe erosion	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam,	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine	60 70 50 40 70 60	Eastern redced
Clayey soils with moderate productivity; moderate edding mortality and equipment estrictions; best suited for eddleleaf trees. Severely eroded soils with moderate productivity; derate to severe erosion eazard, equipment limitations,	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine	60 70 50	Eastern redced
c2 Clayey soils with moderate productivity; moderate edling mortality and equipment estrictions; best suited for eddleleaf trees. c3e Severely eroded soils with moderate productivity; oderate to severe erosion azard, equipment limitations, and seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay,	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redced
c2 Clayey soils with moderate productivity; moderate edling mortality and equipment estrictions; best suited for eddleleaf trees. c3e Severely eroded soils with moderate productivity; oderate to severe erosion azard, equipment limitations, and seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redced
c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment estrictions; best suited for eedleleaf trees. c3e Severely eroded soils with moderate productivity; oderate to severe erosion azard, equipment limitations, nd seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes Cumberland silty clay to clay	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redceds
c2 Clayey soils with moderate productivity; moderate edling mortality and equipment estrictions; best suited for eddleleaf trees. c3e Severely eroded soils with moderate productivity; oderate to severe erosion azard, equipment limitations, and seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes Cumberland silty clay to clay severely eroded, 2-20% slopes	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redceds
c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment estrictions; best suited for eedleleaf trees. c3e Severely eroded soils with moderate productivity; oderate to severe erosion azard, equipment limitations, nd seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes Cumberland silty clay to clay severely eroded, 2-20% slopes Decatur silty clay loam,	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redceds
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c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment estrictions; best suited for eedleleaf trees. c3e Severely eroded soils with	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes Cumberland silty clay to clay severely eroded, 2-20% slopes Decatur silty clay loam, severely eroded, 5-30% slopes Decatur silty clay loam, severely eroded, 5-30% slopes Devey silty clay loam, severely eroded, 5-30% slopes Devey silty clay loam, severely eroded, 5-30% slopes Devey silty clay loam, severely eroded, 5-30% slopes Devey silty clay loam, severely eroded, 5-30% slopes	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redceds Eastern redceds Loblolly pine
c2 Clayey soils with moderate productivity; moderate eedling mortality and equipment estrictions; best suited for eedleleaf trees. c3e Severely eroded soils with moderate productivity; oderate to severe erosion azard, equipment limitations, nd seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes Cumberland silty clay to clay severely eroded, 2-20% slopes Decatur silty clay loam, severely eroded, 5-30% slopes Dewey silty clay loam, severely eroded, 5-30% slopes ly eroded, 5-30% slopes	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redceds Eastern redceds Loblolly pine
c2 Clayey soils with moderate productivity; moderate edling mortality and equipment estrictions; best suited for eddleleaf trees. c3e Severely eroded soils with moderate productivity; oderate to severe erosion azard, equipment limitations, and seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes Cumberland silty clay to clay severely eroded, 2-20% slopes Decatur silty clay loam, severely eroded, 5-30% slopes Dewey silty clay loam, severe ly eroded, 5-30% slopes Ty eroded, 5-30% slopes Fullerton cherty silty clay	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redceds Eastern redceds Loblolly pine
c2 Clayey soils with moderate productivity; moderate edding mortality and equipment estrictions; best suited for eddleleaf trees. c3e Severely eroded soils with moderate productivity; derate to severe erosion azard, equipment limitations, and seedling mortality; best	Colbert silt loam to silty clay loam, 0-20% slopes Allen clay loam severely eroded, 5-45% slopes Braxton silty clay loam, severely eroded, 5-20% slopes Christian clay loam to clay, severely eroded, 5-20% slopes Cumberland silty clay to clay severely eroded, 2-20% slopes Decatur silty clay loam, severely eroded, 3-30% slopes Dewey silty clay loam, severely eroded, 5-30% slopes Ty eroded, 5-30% slopes Fullerton cherty silty clay loam, severely eroded, 12-45% slopes	Shortleaf pine Loblolly pine Eastern redcedar Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	60 70 50 40 70 60	Eastern redceds

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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		Productivit	V	Species
Woodland Suitability Group	Soils	Tree Species	Site	Suitable
(Symbol and Description) (1)	(2)	(3)	(4)	for Planting (5)
4c3e (continued)	Hampshire silty clay to clay, severely eroded, 5-20% slopes Inman clay loam to clay, severely eroded, 5-45% slopes Maury silty clay loam, severely eroded, 5-45% slopes Mimosa cherty silty clay to clay, severely eroded, 5-45% slopes Stiversville clay loam and silty clay loam, severely eroded, 5-30% slopes Talbott clay to silty clay, severely eroded, 5-20% slopes Waynesboro clay loam, severely eroded, 5-20% slopes Waynesboro clay loam, severely eroded, 5-30% slopes		(,,	
5x3 Rocky soils with low productivity; slight to moderate erosion hazard, moderate to severe seedling mortality and equipment restrictions; best suited for needleleaf trees.	Ashwood very rocky silty clay loam, 2-20% slopes Barfield very rocky clay loam, 2-30% slopes Colbert very rocky silty clay to clay, 2-30% slopes	Eastern redcedar	30-40	Eastern redcedar Loblolly pine
Clayey soils with low productivity; moderate to severe equipment restrictions and seedling mortality; best suited for needleleaf trees.	Colbert silty clay to clay, 0-20% slopes	Eastern redcedar	30	Eastern redcedar
Shallow soils with low productivity; moderate to severe erosion hazard, equip- ment restrictions and seedling mortality; best suited for needleleaf trees.	Dandridge silty clay loam, severely eroded, 5-45% slopes Rockcastle shaly silt loam, 10-50% slopes Sulphura cherty and shaly silt loam, 12-45% slopes	Eastern redcedar	30	Eastern redcedar



